

**STATE OF INDIANA  
CLASSIFICATION  
SPECIFICATION**

<b><u>Class Title:</u></b> Database Analyst - Senior		<b><u>Class Code:</u></b> 1BF1
<b><u>FLSA Status:</u></b> Exempt	<b><u>Salary Schedule:</u></b> RDS	<b><u>Effective Date:</u></b> 5/31/04

**Summary:**

Incumbent works at a state information technology division at the highest level of all phases of database management and typically reports to a supervising Database Administrator/Manager or higher-level manager.

**Duties:**

- Designs and implements logical and physical databases of a complex nature;
- Determines aggregation, partitioning, and indexing strategies for physical data;
- Monitors and tunes database performance;
- Administers end-user access and security at the database level;
- Ensures that data is appropriately protected via database backup and related strategies;
- Loads process database software and the application of fixes;
- Evaluates and selects infrastructure components;
- Provides operational support for the database ensuring data integrity, database availability, and performance;
- Implements and maintains database catalogs and dictionaries;
- Provides overall monitoring of the standards, procedures and integration of systems through database design;
- Consults with and makes recommendations to Business Consultancy/Planning, Project Management and associate user groups to define information processing requirements, evaluate technology needs and formulate solutions;
- Evaluates technology and products to determine the feasibility of adding to agency standards;
- Develops work plans for assigned projects and supervises their execution;
- Provides guidance and reviews the work of team members on special projects;
- Facilitates discussions for long-term planning implementation;
- Identifies and explores the potential strategies for long-term planning implementation;
- Serves as project lead for software products;
- Works with and provides guidance to information systems personnel or user agencies for maximum computer utilization;
- Trains and provides technical assistance to other database analyst staff;
- Performs related duties as assigned.

**Job Requirements:**

- Extensive knowledge in the technology of both the DBMS and the operating system chosen for the data warehouse or data mart;
- Extensive knowledge in software and utilities related to supported DBMS such as Reorg, Backup, Recovery, Load, Unload;
- Extensive knowledge of capacity planning and disaster recovery;
- Extensive knowledge of relational database and/or data warehouse design techniques and dimensional modeling processes;
- Extensive knowledge of computer hardware/software capabilities and configurations;
- Working knowledge of computer programming, including computer languages and testing of programs;
- Broad knowledge of data communications, including networking, mainframe connectivity, and communications server;
- Extensive knowledge of the most recent technical developments in the database administration field;
- Ability to perform logic analysis;
- Ability to manage multiple hardware/software projects and priorities;

- Ability to analyze, communicate and recommend future needs and direction for agency's data processing software/hardware environment;
- Ability to read and understand complicated technical manuals;
- Ability to communicate effectively, both orally and in writing;
- Ability to apply theories, principles and methodologies to existing computer software;
- Ability to write complex database computer programs, macros, scripts, etc.;
- Ability to guide and coordinate the work of others.

**Difficulty of Work:**

Work is broad in scope requiring extensive judgment in adopting techniques to meet the information technology requirements, specifications, standards, and procedures of a complex enterprise-wide system.

**Responsibility:**

Work has a direct influence and impact on the agency's ability to successfully administer the business operation to achieve agency mission, policy, or practice.

Technical instruction is generally not needed; however, incumbent may seek guidance when unique problems arise. Work is reviewed for adherence to deadlines and attainment of objectives.

**Personal Work Relationships:**

Incumbent works with personnel from within and outside the agency at all levels. Contacts are for the purpose of coordinating, problem solving, troubleshooting and analyzing in highly sensitive or disputed situations.

**STATE OF INDIANA  
CLASSIFICATION  
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<b><u>Class Title:</u></b> Applications Systems Analyst/Programmer - Senior		<b><u>Class Code:</u></b> 1BC1
<b><u>FLSA Status:</u></b> Exempt	<b><u>Salary Schedule:</u></b> RDS	<b><u>Effective Date:</u></b> 5/31/04

**Summary:**

Incumbent works in an agency information technology division under general direction performing application systems analysis and programming duties and typically reports to the Application Systems Analyst and Programming Supervisor, Application Systems Analyst and Programming Manager, or higher level staff.

**Duties:**

- Confers with department management to assist in planning, organizing and controlling activities of assigned area;
- Confers with user community to conduct, through research, fact-finding and analysis to formulate and define system requirements, scope and objectives, establish priorities, and monitor progress of complex information systems;
- Devises or modifies procedures to solve complex problems considering computer equipment capacity and limitations, operating time, and form of desired results to obtain maximum computer utilization;
- Prepares detailed project feasibility studies, formulates complete system scope, project cost, time estimates and human resource and IT infrastructure requirements for new and existing application software systems;
- Prepares detailed specifications from which application software will be written;
- Prepares and conducts system test planning;
- Designs, codes and debugs new application software programs and/or makes enhancements to existing application software programs of all levels;
- Tests and debugs new and existing application software;
- Executes task conforming to shop techniques, standards, policies and procedures;
- May use case tools and/or application development software tools;
- Provides complete documentation for new or modified information systems and/or application software programs including operational procedures and manuals;
- Assists, directs, trains and coordinates the work of less experienced application software developers and/or application systems analyst staff and assists with development of difficult and complex programs;
- May function as Team and/or Project lead responsible for completion of project phase;
- Monitors application software systems to ensure proper execution and performance;
- Performs related duties as required.

**Job Requirements:**

- Extensive knowledge of information systems design principles and new systems design techniques;
- Extensive knowledge of policies, standards, procedures, and techniques used for application development;
- Ability to perform problem solving and analytical analysis;
- Extensive knowledge of application development software tools and application development software languages;
- Extensive knowledge of information technology equipment, operation, and capabilities;
- Extensive knowledge of the most recent advancement of information technology equipment, operation, capabilities;
- Extensive knowledge of both system and business applications and competent to work at the highest technical level of all phases of applications systems analysis and programming activities;
- Ability to read and understand complicated technical manuals;
- Ability to manage multiple application development software projects and priorities;
- Ability to communicate effectively, both orally and in writing.

**Difficulty of Work:**

Work is broad in scope requiring extensive judgment in adopting techniques to meet the information technology requirements, specifications, standards, and procedures of a complex enterprise wide system.

**Responsibility:**

Work has a direct influence and impact on the agency's ability to successfully administer the business operation to achieve agency mission, policy, or practice.

Technical instruction is generally not needed; however, incumbent may seek guidance when unique problems arise. Work is reviewed for adherence to deadlines and attainment of objectives.

**Personal Work Relationships:**

Works with agency user community, agency management, and other department staff to define problems, system requirements and establish priorities and monitor progress to develop and maintain information systems. Incumbent works with supervisor, manager, cooperatively with other technical staff, agency personnel and other external business entities necessary for delivering successful information systems.

**STATE OF INDIANA  
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<b><u>Class Title:</u></b> Application Developer - Senior		<b><u>Class Code:</u></b> 1BA2
<b><u>FLSA Status:</u></b> Exempt	<b><u>Salary Schedule:</u></b> RDS	<b><u>Effective Date:</u></b> 5/31/04

**Summary:**

Incumbent works in an agency information technology division as a high level technical expert in design, development, coding, testing, and debugging new application software or significant enhancements to existing application software. Employee typically reports to Application Systems Analyst and Programming Supervisor and/or higher-level staff.

**Duties:**

- Acts as a high level technical expert in design and development of new application software or significant enhancements to existing application software;
- Assists in analysis to develop project cost and time estimates;
- Designs, develops, codes and debugs new application software or makes significant enhancements to existing application software according to general direction;
- Tests and debugs new and existing application software with general direction, generating comprehensive unit and system test data, and validating test results;
- Assists in developing system test plan for complex applications;
- Develops comprehensive system test plan on less complex applications;
- Writes all level of application software programs according to general directions;
- Uses case tools and/or application development software tools;
- Provides complete documentation for new or enhanced application software;
- Develops problem solutions or application software enhancements within defined scope;
- Resolves customer complaints with software and responds to suggestions for improvements and enhancements;
- Monitors completed application software system to ensure proper execution and performance;
- May provide assistance and training to lower level staff;
- Performs related duties as required.

**Job Requirements:**

- Advanced knowledge of application development software languages;
- Advanced knowledge of policies, standards, procedures, and techniques used for application development;
- Advanced knowledge of application software tools;
- Extensive knowledge of business application within scope of the work assigned;
- Considerable knowledge of information technology equipment, operation, and capabilities;
- Considerable knowledge of application software flow;
- General knowledge of new system design techniques;
- Ability to communicate effectively, both orally and in writing;
- Ability to understand and resolve problems with application software.

**Difficulty of Work:**

Work is broad in scope requiring extensive judgment in adopting techniques to meet the information technology requirements, specifications, standards, and procedures of a complex enterprise-wide system.

**Responsibility:**

Work has a direct influence and impact on the agency's ability to successfully administer the business operation to achieve agency mission, policy, or practice.

Technical instruction is generally not needed; however, the incumbent may seek guidance when unique problems arise. Work is reviewed for adherence to deadlines and attainment of objectives.

**Personal Work Relationships:**

Works mainly with information technology staff, but may also have limited contact with personnel from other departments or divisions to receive information required to complete assignments.

**STATE OF INDIANA  
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<b><u>Class Title:</u></b> Project Manager – Senior		<b><u>Class Code:</u></b> EAU6
<b><u>FLSA Status:</u></b> Exempt	<b><u>Salary Schedule:</u></b> RDS	<b><u>Effective Date:</u></b> 05/31/04

**Summary:**

Manages, plans, organizes, and controls all operations and activities of large information technology projects at the highest level. Employee works in an Information Technology Division of a State Agency and typically reports to the Information Technology Director, or higher level staff.

**Duties:**

- Manages large enterprise-type projects that involve multiple agencies/departments/divisions and other state or contracted resources for the project;
- May oversee multiple projects to ensure proper management towards successful conclusion;
- Creates and maintains project plans;
- Ensures that users and project team members roles and responsibilities on the project are defined;
- Coordinates and monitors activities of all parties involved in the project to ensure the system is completed on time and within budget;
- Communicates project status to appropriate management and interested parties;
- Ensures that user requirements, deliverables and approvals are defined;
- Ensures the delivery of a product that meets user requirements;
- Mentors and provides guidance to lower level Project Managers which might include recommending training and experience to be gained from project assignments;
- Creates and maintains a team atmosphere and work environment to promote project work productivity;
- Performs related work as assigned.

**Job Requirements:**

- Thorough knowledge of project cost management, benefit analysis, risk management, funding and estimation of resources;
- Thorough knowledge of project management theories and practices and the ability to apply that knowledge;
- Extensive knowledge of the information systems development life cycle, information technology, project tools and approaches to development and implementation;
- Familiarity with the business functional area under consideration for automation;
- Ability to lead, encourage and influence others to perform;
- Ability to communicate effectively orally and in writing;
- Ability to supervise and manage diverse human resources.

**Difficulty of Work:**

Work is broad in scope requiring extensive judgment in adopting techniques to meet the information technology requirements, specifications, standards, and procedures of a complex enterprise wide system.

**Responsibility:**

Work has a direct influence and impact on the agency's ability to successfully administer the business operation to achieve agency mission, policy, or practice.

Technical instruction is generally not needed, however employee may seek guidance when unique problems arise. Work is reviewed for adherence to deadlines and attainment of objectives.

**Personal Work Relationships:**

Works with Agency Executive Management, Information Technology Management, Division Management, Systems Users and Agency Personnel, Consultants, Vendors, Representatives from other Agencies, ITOC, and any other individual or group involved with the project. The project manager is responsible for monitoring project progress and communicating that progress to management. The project manager consults and is involved in cooperative and non-cooperative problem solving with the project team and other individuals impacted by the automation project.

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<b><u>Class Title:</u></b> Systems Administrator – Senior		<b><u>Class Code:</u></b> 1BM1
<b><u>FLSA Status:</u></b> Exempt	<b><u>Salary Schedule:</u></b> RDS	<b><u>Effective Date:</u></b> 5/31/04

**Summary:**

Incumbent works in an agency information technology division performing system administration activities and typically reports to System Administrator Manager or higher-level staff.

**Duties:**

- Responsible for activities related to systems administration;
- Assigns personnel to various projects, directing their activities, and may evaluate their work;
- Ensures long-term requirements of systems operations and administration; also may include the overall systems planning;
- Responsible for installation, maintenance, configuration, and integrity of computer software and its components;
- Implements operating system enhancements that will improve the reliability and performance of the system;
- Designs, develops, modifies and maintains complex system software using releases and utilities;
- Responsible for testing, debugging, and documentation of system software upgrades and new releases; also may include some program design and coding;
- Responsible for software applications dealing with the overall operating system; may include sophisticated file maintenance routines, telecommunications networks, and computer accounting;
- May be responsible for quality assurance review of system software;
- Evaluates new and existing software products;
- Confers with department management to assist in planning, organizing and controlling activities of assigned area;
- May perform as team lead or project manager in assigned area;
- May oversee multiple projects or project phases;
- Defines system software and hardware requirements;
- Mentors and provides guidance to new and lower-level staff;
- Performs related duties as required.

**Job Requirements:**

- Thorough knowledge of information technology system including software, hardware, and their impact on the various components;
- Thorough knowledge of policies, standards, procedures, and techniques;
- Thorough knowledge of information technology equipment, operation, and capabilities;
- Ability to establish and maintain a cooperative working relationship with others;
- Ability to develop and execute system backup and recovery procedures and plans;
- Ability to work with other information technology support staff to develop capacity planning;
- Thorough knowledge of installation, maintenance, configuration of system software and system operating systems;
- Thorough knowledge in the use of tools and utilities to perform the system work;
- Thorough knowledge of designing, coding, testing, debugging, and documenting system software components;
- Thorough knowledge in performance and tuning techniques.

**Difficulty of Work:**

Work is broad in scope requiring extensive judgment in adopting techniques to meet the information technology requirements, specifications, standards, and procedures of a complex enterprise-wide system.



**Responsibility:**

Work has a direct influence and impact on the agency's ability to successfully administer the business operation to achieve agency mission, policy, or practice.

Technical instruction is generally not needed; however, incumbent may seek guidance when unique problems arise. Work is reviewed for adherence to deadlines and attainment of objectives.

**Personal Work Relationships:**

Incumbent works with agency user community, agency management, and other department staff to define problems, system requirements and establish priorities and monitor progress to develop and maintain information systems. Incumbent works with supervisor, manager, cooperatively with other technical staff, agency personnel and other external business entities necessary for delivering successful information systems.

**STATE OF INDIANA  
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<b><u>Class Title:</u></b> Business Systems Consultant - Senior		<b><u>Class Code:</u></b> 1BD1
<b><u>FLSA Status:</u></b> Exempt	<b><u>Salary Schedule:</u></b> RDS	<b><u>Effective Date:</u></b> 5/31/04

**Summary:**

Incumbent works at the highest level of most phases of information systems analysis while considering the technical and/or business implications of the application of technology and/or improved processes to the current and future business environment. Incumbent works in an Information Technology Division of a State Agency under the guidance of a Business Systems Consultant Manager, Information Technology Director, or higher-level staff.

**Duties:**

- Creates process change through the integration of new processes with existing ones and communication of changes to impacted Business Systems teams;
- Formulates and defines system scopes and objectives through research and fact-finding combined with a basic understanding of user needs, business systems and industry requirements;
- Promotes the utilization of technical services to resolve business issues within the enterprise, agency, program area, division or product line;
- Devises or modifies procedures to solve problems considering telecommunications equipment and systems or computer equipment capacity and limitations, operating time, and form of desired results;
- Facilitates the delivery of technical business solutions to customers;
- Manages the expectations of customers, peers, vendors and management;
- Establishes contracts for the procurement of technical business solutions and products;
- Analyzes business and user needs, documents requirements, devises new technical business system solutions, and translates into proper system requirement specifications;
- Establishes and maintains strategic partnerships with assigned customers in order to help them meet their business and technical needs;
- Provides leadership in the development of strategic plans based on customer needs;
- Develops technical standards and policies to meet the needs of customers, peers and management;
- Recommends and facilitates quality improvement efforts;
- May participate in strategic planning processes for Information Technology Division, seeking opportunities to apply current and future service offerings to meet the needs of current and potential customers;
- May lead re-engineering team and act as project manager in some cases;
- May train, guide and advise lower level Business Systems Consultants;
- Performs related duties as assigned.

**Job Requirements:**

- Thorough knowledge of the organization's business systems and industry requirements;
- Thorough knowledge of technical problems and solutions as they relate to the current and future business environment;
- Advanced knowledge of the application of software engineering process tools;
- Advanced knowledge of project management theories and practices and the ability to apply that knowledge;
- Ability to lead, encourage and influence others to perform;
- Ability to communicate effectively, orally and in writing;
- Ability to manage diverse human resources.

**Difficulty of Work:**

Work is broad in scope requiring extensive judgment in adopting techniques to meet the information technology requirements, specifications, standards, and procedures of a complex enterprise-wide system.

**Responsibility:**

Work has a direct influence and impact on the agency's ability to successfully administer the business operation to achieve agency mission, policy, or practice.

Technical instruction is generally not needed; however, incumbent may seek guidance when unique problems arise. Work is reviewed for adherence to deadlines and attainment of objectives.

**Personal Work Relationships:**

Incumbent works with agency executive management, information technology management, division management, systems users and agency personnel, vendors, representatives from other agencies and ITOC. Incumbent communicates changes and problems to affected business systems teams. Communication is non-routine that involves cooperative problem solving where significant differences of opinion or controversy exist.

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<b><u>Class Title:</u></b> LAN Administrator - Senior		<b><u>Class Code:</u></b> 1BJ1
<b><u>FLSA Status:</u></b> Exempt	<b><u>Salary Schedule:</u></b> RDS	<b><u>Effective Date:</u></b> 5/31/04

**Summary:**

Incumbent serves as a senior level LAN Administrator carrying out a wide variety of the most advanced technical computer system duties and typically reports to LAN Administration Manager or higher-level staff.

**Duties:**

- Analyzes and develops server hardware specifications and configurations;
- Monitors the network to ensure performance status;
- Establishes standards and procedures for server specifications and setup;
- Ensures that loops on event servers, either preventative or scheduled, are performed;
- Ensures that all preventive maintenance is performed;
- Acts as a liaison for other departments/divisions in providing troubleshooting for all types of programs;
- Prepares proposals, cost benefit analysis, budgets and feasibility studies;
- Performs studies to define solutions;
- Provides integrated customer support and consults with all users on system design and implementation;
- Evaluates new products/technologies to determine impact on existing systems;
- Evaluates vendor products and recommends hardware, software and modem equipment to management for purchase;
- Performs other duties as assigned.

**Job Requirements:**

- Thorough knowledge of network operating system, design, and protocols;
- Thorough knowledge of local area network concepts;
- Thorough knowledge of computer programming including computer languages, database design work process charting and testing of programs;
- Thorough knowledge of technology equipment including operating characteristics and limitations;
- Thorough knowledge of most recent technical developments in the hardware field;
- Advanced knowledge of operating systems;
- Advanced knowledge of networking protocols;
- Advanced knowledge of distributed systems based tape management software;
- Ability to communicate, both orally and in writing;
- Ability to read and understand complicated technical manuals on hardware, software, LAN design and administration.

**Difficulty of Work:**

Work is broad in scope requiring extensive judgment in adopting techniques to meet the information technology requirements, specifications, standards, and procedures of a complex enterprise-wide system.

**Responsibility:**

Work has a direct influence and impact on the agency's ability to successfully administer the business operation to achieve agency mission, policy, or practice.

Technical instruction is generally not needed; however, incumbent may seek guidance when unique problems arise. Work is reviewed for adherence to deadlines and attainment of objectives.

**Personal Work Relationships:**

Incumbent interacts with a wide range of personnel from the agency, other state agencies and outside contractors to ensure that the multiple computer systems are operationally ready to meet the processing requirements of its customers. Incumbent also works with manager, technical support, vendors, analysts, programmers and clients in the systems design, problem solving, software/hardware maintenance and administration. Incumbent may be involved in large-scale projects with many different parties which often requires cooperative problem solving. Incumbent must be able to tactfully gain information and cooperation from co-workers, vendors and customers.

**STATE OF INDIANA  
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<b><u>Class Title:</u></b> Network Engineer – Senior		<b><u>Class Code:</u></b> 1BK1
<b><u>FLSA Status:</u></b> Exempt	<b><u>Salary Schedule:</u></b> RDS	<b><u>Effective Date:</u></b> 5/31/04

**Summary:**

Incumbent is responsible for the design, configuration and implementation of TCP/IP networks including the core, distribution and access layers of a network. Incumbent manages network devices, including but not limited to, multi-layer switches/routers, client and network VPN appliances, intrusion prevention systems, firewalls, protocol analyzers, video over IP, network management products, wireless networks and Voice over IP (VoIP) systems, or any other new technology. Incumbent typically reports to a Network Engineer Manager or higher-level staff.

**Duties:**

- Provides expertise regarding the architecture, planning, design and implementation of complex network systems;
- Develops, plans, and implements the overall strategic goals of an organizational network design;
- Coordinates and facilitates timely repairs ensuring the availability of technology related systems;
- Consults on complex projects and is considered to be the top level contributor/specialist;
- Provides the highest level of escalation and resolution of issues for the campus area network, wide area network, and other local area networks;
- Manages the assessment and optimization of network design through review and assessment;
- Oversees and manages the maintenance of the multi-layer switches and routers;
- Oversees and performs identification of system/network problems;
- Oversees and performs the testing, adjusting, and troubleshooting of equipment;
- Develops and conducts feasibility studies for large projects;
- Develops requests for proposals;
- Performs capacity planning to ensure network demands;
- Interfaces with vendor support to resolve hardware/software compatibility issues;
- Evaluates vendor products and makes recommendations on selection;
- Provides tactical and strategic input on overall network planning and related projects;
- Manages the support, monitoring and troubleshooting of hardware/software problems and recommends scheduling of repairs;
- Mentors and provides guidance to new and lower-level staff;
- Evaluating new technology and products to determine the feasibility of implementation;
- Provides guidance to user agencies for maximum utilization of the communications infrastructure;
- Participates in formulating the office services budget and oversees the expenditure of funds;
- Performs related duties as assigned.

**Job Requirements:**

- Thorough knowledge of networking hardware/software;
- Thorough knowledge of advanced multi-protocol network environments;
- Thorough knowledge of advanced switching techniques;
- Thorough knowledge of advanced load balancing methodologies;
- Thorough knowledge of advanced encryption strategies (VPN tunneling, etc.)
- Thorough knowledge of different topology systems i.e. Ethernet, Token ring, etc..;
- Thorough knowledge of network design and traffic engineering;
- Thorough knowledge of network designing, implementing and managing security practices;
- Thorough knowledge of network capacity planning and event management tools i.e. Cisco works 2000, HP Open view;
- Thorough knowledge of all guidelines, policies and procedures related to Multi-protocol services;
- Advanced knowledge of wireless protocols and technologies;
- Ability to communicate effectively, both orally and in writing;
- Ability to read, understand and interpret complex manuals and blue prints;

**Difficulty of Work:**

Work is broad in scope requiring extensive judgment in adopting techniques to meet the information technology requirements, specifications, standards, and procedures of a complex enterprise-wide system.

**Responsibility:**

Work has a direct influence and impact on the State's ability to successfully administer the business operation to achieve agency mission, policy, or practice. Technical instruction is generally not needed; however, incumbent may seek guidance when unique problems arise. Work is reviewed for adherence to deadlines and attainment of objectives.

**Personal Work Relationships:**

Incumbent interacts with all levels of management across multiple agencies, units, divisions and departments for the purpose of designing, planning, coordinating, installing and implementing various networking projects and to resolve operational issues. Outside vendors are contacted in gathering information, obtaining professional support and resolving issues. Incumbent must use diplomacy and persuasion in gaining consensus regarding complex network system and service issues.